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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,196	11/17/2003	Debabani Choudhury	B-5198NP 621388-9	4114
36716	7590	08/24/2005	EXAMINER	
LADAS & PARRY 5670 WILSHIRE BOULEVARD, SUITE 2100 LOS ANGELES, CA 90036-5679			OWENS, DOUGLAS W	
			ART UNIT	PAPER NUMBER
			2811	
DATE MAILED: 08/24/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	10/716,196	CHOUDHURY ET AL.	
	Examiner	Art Unit	
	Douglas W. Owens	2811	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/15/05.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-10, 11-14 and 18-20 is/are rejected.
- 7) ☒ Claim(s) 5, 6 and 15-17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1 – 4, 7 – 9, 11 – 14 and 18 – 20 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 6,603,193 to Crane, Jr. et al.

Regarding claim 1, Crane, Jr. et al. teach a housing for an integrated circuit (Fig. 4), comprising:

a base (12) for securing a substrate with an integrated circuit thereon (14, bottom portion);

a top cover (28); and

a body (14) with a cavity for receiving the substrate and a portion of the top cover therein to form an enclosed housing therewith, the body including at least one connector (30, 32) extending from within the cavity to outside of the body and configured to electrically contact the integrated circuit when the substrate is in the cavity.

Regarding claim 2, Crane, Jr. et al. teach a housing wherein the top cover comprises a metal (Col. 4, lines 8 and 9).

Regarding claim 3, Crane, Jr. et al. inherently teach that at least one of the connectors is an RF connector, since Crane, Jr. et al. also teaches an RF shield (17; Col. 4, lines 53 – 59).

Regarding claim 4, Crane, Jr. et al. inherently teach that at least one connector is a DC connector, since it would have been required for operation of the device.

Regarding claim 7, Crane, Jr. et al. teach a housing, wherein the top cover further comprises an absorber formed of a material (Cu; Col. 4, lines 8 and 9) that absorbs radio frequency energy (copper is a known RF shield material), the absorber configured to be received into the cavity when the base, the body, and top cover are secured together.

Regarding claim 8, Crane, Jr. et al. teach a housing further comprising:
an integrated circuit (18) mounted onto the base to be received in the cavity and electrically contact the at least one connector when the base, the body, and the top cover are secured together.

Regarding claim 9, Crane, Jr. et al. a housing wherein the integrated circuit is a monolithic microwave integrated circuit (Col. 3, lines 57 and 58, for example).

Regarding claim 11, Crane, Jr. et al. teach a method for forming a housing for an integrated circuit (Fig. 4), comprising:

providing a base (12) for securing a substrate with an integrated circuit thereon (14, bottom portion);

providing a top cover (28); and

providing a body (12, upper portion) with a cavity for receiving the substrate and a portion of the top cover therein to form an enclosed housing therewith, the body including at least one connector (30, 32) extending from within the cavity to outside of

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the body and configured to electrically contact the integrated circuit when the substrate is in the cavity.

Regarding claim 12, Crane, Jr. et al. teach a method wherein the top cover comprises a metal (Col. 4, lines 8 and 9).

Regarding claim 13, Crane, Jr. et al. inherently teach a method wherein at least one of the connectors is an RF connector, since Crane, Jr. et al. also teaches an RF shield (17; Col. 4, lines 53 – 59).

Regarding claim 14, Crane, Jr. et al. inherently teach that at least one connector is a DC connector, since it would have been required for operation of the device.

Regarding claim 18, Crane, Jr. et al. teach a method, wherein the top cover further comprises an absorber formed of a material (Cu; Col. 4, lines 8 and 9) that absorbs radio frequency energy (copper is a known RF shield material), the absorber configured to be received into the cavity when the base, the body, and top cover are secured together.

Regarding claim 19, Crane, Jr. et al. teach a method further comprising:
mounting an integrated circuit (18) mounted onto the base to be received in the cavity and electrically contact the at least one connector when the base, the body, and the top cover are secured together.

Regarding claim 20, Crane, Jr. et al. a method wherein the integrated circuit is a monolithic microwave integrated circuit (Col. 3, lines 57 and 58, for example).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Crane Jr. et al. as applied to claims 1 and 8 above, and further in view of US Patent No. 6,670,222 to Brodsky.

Crane Jr. et al. do not teach securing the integrated circuit to the base with indium. Brodsky teaches that an IC may be securely attached using indium (Col. 9, lines 20 – 25). It would have been obvious to one of ordinary skill in the art to incorporate the teaching of Brodsky into the device taught by Crane Jr. et al., since it is desirable to use materials that are known to be reliable for secure attachment of an IC.

Allowable Subject Matter

4. Claims 5, 6 and 15 – 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

5. Applicant's arguments filed June 15, 2005 have been fully considered but they are not persuasive.

Applicant argues that Crane Jr. et al. do not teach a housing including "at least one connector extending from within the cavity to outside of the body and configured to

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contact the integrated circuit.” Applicant further asserts that the top portions of the connectors (30, 32) are pads, as taught by Crane Jr. et al. Applicant correctly asserts that the pads are electrically connected to the bonding conductors (54), which are in turn electrically connected to the bonding pads (43) of the circuit. Since the connectors (30, 32) are electrically connected to the bonding conductors and the bonding conductors are electrically connected to the circuit via the bonding pads (43), the connectors clearly *electrically* contact to the circuit. Crane Jr. et al. further discusses this in lines 41 – 46 of Col. 4.

The rejections under 35 U.S.C. 112 have been withdrawn.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas W. Owens whose telephone number is 571-272-1662. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven H. Loke can be reached on 571-272-1657. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Douglas W Owens
Examiner
Art Unit 2811

DWO